

Title (en)  
PHOTOVOLTAIC SYSTEM AND POWER SYSTEM

Title (de)  
FOTOVOLTAISCHES SYSTEM UND STROMVERSORGUNGSSYSTEM

Title (fr)  
SYSTÈME PHOTOVOLTAÏQUE ET SYSTÈME D'ALIMENTATION

Publication  
**EP 4246801 A1 20230920 (EN)**

Application  
**EP 20965617 A 20201218**

Priority  
CN 2020137619 W 20201218

Abstract (en)  
This application discloses a photovoltaic system and a power supply system. The photovoltaic system includes a first inverter circuit, a second inverter circuit, and a switch circuit. A first input end and a second input end of the first inverter circuit are respectively connected to a direct current positive bus and a neutral bus, and a first input end and a second input end of the second inverter circuit are respectively connected to the neutral bus and a direct current negative bus. The switch circuit includes a first state and a second state. When the switch circuit is in the first state, a first photovoltaic array is connected to the direct current positive bus and the neutral bus through the switch circuit, and a second photovoltaic array is connected to the neutral bus and the direct current negative bus through the switch circuit. When the switch circuit is in the second state, the first photovoltaic array is connected to the neutral bus and the direct current negative bus through the switch circuit, and the second photovoltaic array is connected to the direct current positive bus and the neutral bus through the switch circuit. A potential of the photovoltaic array is changed to prevent a PID effect from occurring when the photovoltaic array is at a negative potential for a long time, so that the PID effect is suppressed and a service life of a photovoltaic module is prolonged.

IPC 8 full level  
**H02S 40/30** (2014.01)

CPC (source: EP US)  
**H02J 1/084** (2020.01 - EP); **H02J 3/381** (2013.01 - EP); **H02M 7/44** (2013.01 - US); **H02S 40/32** (2014.12 - EP US); **H02S 40/36** (2014.12 - US); **H02J 2300/24** (2020.01 - EP); **Y02E 10/50** (2013.01 - EP); **Y02E 10/56** (2013.01 - EP)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4246801 A1 20230920**; **EP 4246801 A4 20240313**; CN 116615863 A 20230818; US 2023308050 A1 20230928; WO 2022126601 A1 20220623

DOCDB simple family (application)  
**EP 20965617 A 20201218**; CN 2020137619 W 20201218; CN 202080105499 A 20201218; US 202318328902 A 20230605